Amendments to the Claims:

This listing of claims will replace all prior versions, and

listings, of claims in the application:

Listing of Claims:

Claim 1.   (currently amended)   A data transmission system,

comprising:

a base station;

at least one mobile station, data packets can be transmitted

by radio using a time slot method between said base station

and said mobile station;

first means for transmitting a first part of a data packet at

a predetermined first symbol rate and at a first transmission

frequency; and

second means for transmitting a second part of the data packet

at a second symbol rate and at a second transmission

frequency; and

said second symbol rate possibly differing from said

predetermined first symbol rate.

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Claim 2. (original) The data transmission system according to claim 1, wherein the first part of the data packet contains information about the second symbol rate.

Claim 3. (original) The data transmission system according to claim 1, further comprising third means for producing a guard time interval between the first part and the second part of the data packet.

Claim 4. (original) The data transmission system according to claim 1, wherein the second symbol rate is higher than the predetermined first symbol rate.

Claim 5. (original) The data transmission system according to claim 1, wherein said base station and said mobile station each have a local oscillator.

Claim 6. (original) The data transmission system according to claim 1, wherein each said local oscillator is in each case connected to a phase locked loop.

Claim 7. (original) The data transmission system according to claim 1, wherein said base station and said mobile station each have a filter for reception-end selection of a transmission frequency.

Claim 8.   (original)   The data transmission system according

to claim 1, wherein said first means has means for producing

identification information for identification of an

association between said base station and said mobile station.

Claim 9.   (original)   The data transmission system according

to claim 1, wherein said first means has means for producing a

first data packet head.

Claim 10.   (original)   The data transmission system according

to claim 1, wherein said second means has means for producing

a synchronization word for synchronization of said base

station to said mobile station at the second symbol rate.

Claim 11.   (original)   The data transmission system according

to claim 1, wherein the second means has means for producing a

second data packet head, and means for transmitting payload

data.

Claim 12.   (original)   The data transmission system according

to claim 1, wherein:

said base station and said mobile station each have an

algorithm for calculating a sequence of first transmission

frequencies; and

said base station and said mobile station each have an

algorithm for calculating the second transmission frequency.

Claim 13.   (original) The data transmission system according

to claim 1, wherein the data transmission system can be used

in digital cordless communications systems, in computer-

controlled entertainment systems, computer-controlled games

systems, or in systems with real-time requirements.

Claim 14.   (original) The data transmission system according

to claim 1, wherein the first part of the data packet contains

information about the second transmission frequency.

Claim 15.   (currently amended) A method for radio

transmission of data packets between a base station and at

least one mobile station, which comprises the steps of:

transmitting a first part of a data packet at a predetermined

first symbol rate and at a first transmission frequency; and

transmitting a second part of the data packet at a second

symbol rate and at a second transmission frequency; and

the second symbol rate possibly differing from the

predetermined first symbol rate.

Claim 16. (original) The method according to claim 15, which

further comprises transmitting information about the second

symbol rate with the first part of the data packet.

Claim 17. (original) The method according to claim 15, which

further comprises complying with a guard time interval before

transmitting the second part of the data packet.

Claim 18. (original) The method according to claim 15, which

further comprises setting the second symbol rate to be higher

than the first symbol rate.

Claim 19. (original) The method according to claim 15, which

further comprises transmitting and/or receiving the data

packet using a local oscillator provided in each of the base

station and the mobile station.

Claim 20. (original) The method according to claim 19, which further comprises connecting the local oscillator in each case to a phase locked loop.

Claim 21. (original) The method according to claim 15, which further comprises filtering the transmission frequency, upon receiving the data packet, in the base station and the mobile station.

Claim 22. (original) The method according to claim 15, which further comprises transmitting in the first part of the data packet identification information for identifying an association between the base station and the mobile station.

Claim 23. (original) The method according to claim 15, which further comprises transmitting a first data packet header in the first part of the data packet.

Claim 24. (original) The method according to claim 15, which further comprises transferring a synchronization word, for synchronization of the base station to the at least one mobile station, to the second symbol rate at a start of the second part of the data packet.

Claim 25. (original) The method according to claim 15, which

further comprises

transmitting a second data packet header and payload data in

the second part of the data packet.

Claim 26. (original) The method according to claim 15, which

further comprises providing the base station and the at least

one mobile station respectively access to an algorithm for

calculating a sequence of first transmission frequencies, and

to an algorithm for calculating second transmission

frequencies.

Claim 27. (original) The method according to claim 15, which

further comprises forming the base station and the mobile

station as a digital cordless communications system.

Claim 28. (original) The method according to claim 15, which

further comprises forming the base station and the mobile

station as a computer-controlled entertainment system.

Claim 29. (original) The method according to claim 15, which

further comprises forming the base station and the mobile

station as a computer-controlled game system.

Claim 30.   (original)   The method according to claim 15, which

further comprises forming the base station and the mobile

station as a system with real-time requirements.

Claim 31.   (original)   The method according to claim 15, which

further comprises transmitting information about the second

transmission frequency with the first part of the data packet.

Claim 32.   (currently amended)   A data transmission system,
comprising:

a base station; and

at least one mobile station, data packets can be transmitted

by radio using a time slot method between said base station

and said mobile station;

said base station and said mobile station programmed to

transmit a first part of a data packet at a predetermined

first symbol rate and at a first transmission frequency;

second base station and said mobile station programmed to

transmit a second part of the data packet at a second symbol

rate and at a second transmission frequency; and

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said second symbol rate possibly differing from said

predetermined first symbol rate.

Claim 33. (original) The data transmission system according

to claim 32, said base station and said mobile station further

programmed to produce a guard time interval between the first

part and the second part of the data packet.